REMARKS

This Amendment and Response to Non-Final Office Action is being submitted in response to the non-final Office Action mailed July 24, 2006. Claims 1-4 are pending in the Application. The Abstract is objected to for exceeding 150 words under MPEP §608.01(b). Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's admitted prior art and Brewer *et al.* (U.S. Pat. No. 6,226,269) and further in view of Bennett (U.S. Pat. No. 5,610,745).

In response to this objection, the Abstract has been amended to fit within the 150 word limit. In response to this rejection, Claims 1 and 3 have been amended to further clarify the subject matter which Applicants regard as the invention, without prejudice or disclaimer to continued examination on the merits. These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendments and the arguments presented herein, reconsideration of the Application is respectfully requested.

Clams 1-4 – 35 U.S.C. §103(a) – Admitted Prior Art, Brewer, and Bennett

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's admitted prior art and Brewer *et al.* and further in view of Bennett.

Brewer *et al.* teach detecting invalid data and invalid primitives in a data stream and substituting buffer data or valid primitives responsive to invalid data or primitives.[1] Brewer *et al.* teach an error detection device and methods which monitor both data and primitives. Applicants respectfully note that Brewer *et al.* require buffering and additional hardware, and Brewer *et al.* introduce latency since Brewer *et al.* monitor the entire data stream. The present invention focuses solely on the validity of the SOF indicator to ensure buffer-to-buffer count integrity is maintained while avoiding the introduction of latency.

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[1] *See* U.S. Pat. No. 6,226,269, Col. 3, lines 66-67 and Col. 4, lines 1-2

The present invention verifies the Start of Frame indicator in each data frame and suppresses a data frame responsive to corruption in the Start of Frame indicator prior to forwarding to a receiver to ensure buffer-to-buffer credit count integrity is maintained while avoiding the introduction of latency. The present invention does not verify the remainder of the data frame, but rather leaves it to the receiver to detect corruption in the remainder of the data frame with CRC. Brewer *et al.* teach monitoring all incoming data with an error detection device.[2] The methods and apparatus of the present invention have the advantage of requiring less hardware and buffering and the present invention avoids introducing latency.

Applicants respectfully submit that Brewer *et al.* do not disclose, teach, or suggest the transmission of an idle frame in response to a corrupted SOF to ensure buffer-to-buffer credit count integrity is maintained while avoiding the introduction of latency. Further, Brewer *et al.* do not disclose, teach, or suggest verifying only the SOF and having the receiver verify the integrity of the remainder of the data frame. Applicants have amended independent Claims 1 and 3 to incorporate these limitations to further clarify the present invention. Support for the amendment can be found in the specification as filed on page 5, lines 5-10.

Specifically, Applicants have amended Claim 1 to recite:

1. An apparatus for detecting and suppressing corrupted data frames transported from a SONET network to a receiver, said apparatus comprising:
  a buffer-to-buffer credit counting means to control the flow of data frames,
  wherein said buffer-to-buffer credit counting means comprises:
(a) a frame de-encapsulation component configured for producing data frames compatible with said receiver from SONET frames input thereto, and outputting said receiver-compatible data frames;
(b) an idle frame signal generator configured for generating idle frame signals;

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[2] *Id.* at Col. 6, lines 14-21

(c)   a Start of Frame (SOF) indicator detector configured for detecting a Start of Frame indicator in each said receiver-compatible data frame output from said frame de-encapsulation component and determining whether said Start of Frame indicator is valid or corrupted, wherein said detector produces an output signal indicative of said determination; and

(d)   a multiplexer configured for selecting for output to said receiver one of a first and a second signal input thereto on the basis of said output signal produced by said Start of Frame (SOF) indicator detector wherein said first input signal is a current said receiver-compatible data frame and said second input signal is said idle frame signal, said first input signal being selected when said output signal produced by said Start of Frame (SOF) indicator detector indicates that said Start of Frame indicator is valid and said second input signal being selected when said output signal produced by said Start of Frame (SOF) indicator detector indicates that said Start of Frame indicator is corrupted;

wherein said apparatus verifies said Start of Frame indicator in each of said receiver-compatible data frames and suppresses a receiver-compatible data frame responsive to corruption in said Start of Frame indicator prior to forwarding to said receiver to ensure buffer-to-buffer credit count integrity is maintained; and

wherein the integrity of the remainder of said receiver-compatible data frame is verified by the receiver.

Specifically, Applicants have amended Claim 3 to recite:

3.   (Currently Amended):   A method for detecting and suppressing corrupted data frames transported from a SONET network to a receiver, said method comprising:

(a)   receiving SONET frames from said SONET network and producing data frames compatible with said receiving from said received SONET frames;

(b)   detecting a Start of Frame indicator in each said receiver-compatible data frame and determining whether said Start of Frame indicator is valid or corrupted, and

(c)   selecting for output to said receiver a current said receiver-compatible data frame when said Start of Frame indicator is valid and selecting for output to said receiver said idle frame signal when said Start of Frame indicator is corrupted;

wherein said method utilizes a buffer-to-buffer credit counting means to control the flow of data frames;

wherein said method verifies said Start of Frame indicator in each of said receiver-compatible data frames and suppresses a receiver-compatible data frame responsive to corruption in said Start of Frame

indicator prior to forwarding to said receiver to ensure buffer-to-buffer credit count integrity is maintained; and

      wherein the integrity of the remainder of said receiver-compatible data frame is verified by the receiver.

Therefore, Applicants respectfully submit that the rejection of Claims 1-4 under 35 U.S.C. §103(a) as being unpatentable over Applicants' admitted prior art in view of Brewer *et al.* and in further view of Bennett has now been overcome and respectfully request that this rejection be withdrawn.

<u>**CONCLUSION**</u>

Applicants would like to thank Examiner for the attention and consideration accorded the present Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest convenience.

Respectfully submitted,

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